

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A computing device comprising:

~~a processor; and~~

a recording medium operable to record target data, the target data being made up of a plurality of data blocks;

a reproducing unit operable to reproduce the target data from the recording medium;

~~a data nullification device for nullifying at least a part of target data recorded on a recording medium, the target data being made up of a plurality of data blocks, the data nullification device comprising:~~

~~a first judging unit operable to judge, for each data block recorded on the recording medium, whether the data block needs to be nullified when the data block is reproduced from the recording medium;~~

~~a sequential nullifying unit operable to destroy only a part of [[a]] the reproduced data block judged as needing to be nullified while the reproducing unit reproduces the target data from the recording medium, the part of the reproduced data block including data necessary to utilize reproduce remaining parts of the reproduced data block judged as needing to be nullified, the remaining parts being unable to be reproduced without the part of the reproduced data block judged as needing to be nullified;~~

~~a total nullifying unit operable to destroy all data including the remaining parts, the remaining parts being not destroyed by the sequential nullifying unit; and~~

~~a processing capacity judging unit operable to judge whether ~~the data nullification device~~ the computing device has a processing capacity sufficient to destroy the all data which is judged as needing to be nullified including the remaining parts while the reproducing unit~~

reproduces the target data from the recording medium, and to control the total nullifying unit to destroy the all data when the processing capacity judging unit judges that the computing device has the processing capacity sufficient to destroy the all data; and

~~a total nullifying unit operable to destroy data which is included in the data block judged as needing to be nullified and is not destroyed by the sequential nullifying unit, when the processing capacity judging unit judges that data nullification device has the sufficient capacity.~~

2. (Previously Presented) The computing device of Claim 1,

wherein the recording medium stores sequence information that shows a sequence in which the plurality of data blocks were recorded onto the recording medium,

wherein said first judging unit judges, in succession, the plurality of data blocks in the sequence shown by the sequence information, as needing to be nullified.

3. (Canceled)

4. (Previously Presented) The computing device of Claim 1,

wherein each data block has a length corresponding to a fixed transmission time period,
and

wherein a specified number of recording areas which are each used as a recording area of a data block are reserved on the recording medium.

5-6. (Canceled)

7. (Currently Amended) The computing device of Claim 2, ~~wherein the data-~~
~~nullification device further comprises:—~~

~~a utilizing unit operable to utilize~~ wherein the reproducing unit reproduces the target
data recorded on the recording medium, in units of data blocks, and

wherein said first judging unit further judges that each data block which was
~~utilized~~ reproduced by said utilizing unit the reproducing unit needs to be nullified.

8. (Currently Amended) The computing device of Claim 7,
wherein the target data is content data which is transmitted from an external device and
recorded on the recording medium,

wherein the content data is accompanied with copy control information showing
whether copying of the content data is permitted or prohibited,

wherein ~~said utilizing unit~~ the reproducing unit reproduces the content data recorded on
the recording medium, in units of data blocks, and

wherein, only if the copy control information accompanying the content data shows that
the copying of the content data is prohibited, said first judging unit judges that each data block
which was reproduced by ~~said utilizing unit~~ the reproducing unit needs to be nullified.

9. (Previously Presented) The computing device of Claim 1,
wherein the recording medium stores time limit information showing a recording time
limit of each data block recorded on the recording medium, the recording time limit being a time
limit after which retention of the data block on the recording medium is prohibited,

wherein said first judging unit judges that each data block whose recording time limit is

reached needs to be nullified, based on the time limit information.

10. (Currently Amended) The computing device of Claim 9, ~~wherein the data-nullification device further comprises:~~

~~a utilizing unit operable to utilize~~ wherein the reproducing unit reproduces the target data recorded on the recording medium, in units of data blocks, and

wherein said first judging unit further judges that each data block which was utilized by ~~the utilizing unit~~ the reproducing unit needs to be nullified.

11. (Currently Amended) The computing device of Claim 10,
wherein the target data is content data which is transmitted from an external device and recorded on the recording medium,

wherein the content data is accompanied with copy control information showing whether copying of the content data is permitted or prohibited,

~~wherein said utilizing unit~~ the reproducing unit reproduces the content data recorded on the recording medium, in units of data blocks, and

wherein, only if the copy control information accompanying the content data shows that the copying of the content data is prohibited, said first judging unit judges that each data block which was reproduced by ~~the utilizing unit~~ the reproducing unit needs to be nullified.

12. (Currently Amended) The computing device of Claim 1, ~~wherein the data-nullification device further comprises:~~

~~a utilizing unit operable to utilize~~ wherein the reproducing unit reproduces the target

data recorded on the recording medium, in units of data blocks, and

wherein said first judging unit judges that each data block which was
~~utilized~~ reproduced by ~~the utilizing unit~~ the reproducing unit needs to be nullified.

13. (Currently Amended) The computing device of Claim 12,

wherein the target data is content data which is transmitted from an external device and
recorded on the recording medium,

wherein the content data is accompanied with copy control information showing
whether copying of the content data is permitted or prohibited,

wherein ~~said utilizing unit~~ the reproducing unit reproduces the content data recorded on
the recording medium, in units of data blocks, and

wherein, only if the copy control information accompanying the content data shows that
the copying of the content data is prohibited, said first judging unit judges that each data block
on the recording medium which was reproduced by ~~the utilizing unit~~ the reproducing unit needs
to be nullified.

14. (Currently Amended) The computing device of Claim 12, further comprising a
recording unit that records the target data recorded on the recording medium, to another
recording medium, in units of data blocks,

wherein the target data is accompanied with copy control information showing whether
copying of the target data is permitted or prohibited,

wherein ~~the utilizing unit records~~ the reproducing unit reproduces the target data
recorded on the another recording medium, ~~to another recording medium,~~ in units of data blocks,

and

wherein, only if the copy control information accompanying the target data shows that the copying of the target data is prohibited, said first judging unit judges that each data block on the another recording medium which was recorded by ~~the utilizing unit~~ the reproducing unit needs to be nullified.

15-16. (Canceled)

17. (Currently Amended) The computing device of Claim 1,
wherein the target data is MPEG data including I pictures, and
wherein the part of the data block necessary to ~~utilize~~ reproduce the remaining parts of the data block is an I picture.

18. (Currently Amended) The computing device of Claim 1,
wherein the target data is MPEG data including I pictures, and
the part of the data block necessary to ~~utilize~~ reproduce the remaining parts of the data block is a first sector of an I picture.

19-21. (Canceled)

22. (Previously Presented) The computing device of Claim 1,
wherein each data block recorded on the recording medium has been encrypted using an individual encryption key,

wherein a decryption key for decrypting the encrypted data block is stored on the recording medium, and

wherein said sequential nullifying unit destroys at least a decryption key corresponding to a data block which is judged as needing to be nullified.

23. (Currently Amended) The computing device of Claim 22, ~~wherein the data-nullification device~~ further ~~comprises~~ comprising:

an acquiring unit operable to acquire the target data in an encoded form;

a decoding unit operable to decode the encoded target data using a user key which has been provided to authorized users in advance, to obtain the target data;

a key generating unit operable to generate an arbitrary encryption key and a decryption key corresponding to the encryption key, for each data block of the target data;

a data encrypting unit operable to encrypt the data block using the encryption key so that the encrypted data block can be decrypted using the corresponding decryption key;

a key encrypting unit operable to encrypt the decryption key using an identifier unique to the data nullification device; and

a recording unit operable to record the encrypted data block and the encrypted decryption key onto the recording medium.

24. (Previously Presented) The computing device of Claim 23,

wherein at least said decoding unit, said key generating unit, said data encrypting unit, and said key encrypting unit are contained in a single semiconductor chip.

25. (Currently Amended) ~~A computer readable medium storing a computer program, data nullification program embodied on a computer readable~~ the computer program being ~~utilized by a computer~~ for nullifying at least a part of target data recorded on a recording medium, ~~the target data being made up of a plurality of data blocks, the data nullification program having~~ a computer execute a method the computer readable medium comprising:

a recording code segment for recording target data on the recording medium, the target data being made up of a plurality of data blocks;

a reproducing code segment for reproducing the target data from the recording medium;

~~a first judging step of~~ a first judging code segment for judging, for each data block of the target data, whether the data block needs to be nullified when the data block is reproduced from the recording medium;

~~a sequential nullifying step of~~ a sequential destroying code segment for destroying only a part of ~~[[a]]~~ the reproduced data block judged as needing to be nullified while the target data are reproduced from the recording medium, the part of the reproduced data block including data necessary to ~~utilize~~ reproduce remaining parts of the reproduced data block judged as needing to be nullified, the remaining parts being unable to be reproduced without the part of the reproduced data block judged as needing to be nullified;

~~a second judging step of~~ a second judging code segment for judging whether a sufficient processing capacity at the computer exists to destroy all data ~~which is judged as needing as to be nullified~~ including the remaining parts, the remaining parts being not destroyed by the sequential destroying code segment; and

~~a total nullified step of~~ a total destroying code segment for destroying the all data ~~which is included in the data block judged as needing to be nullified and is not destroyed in said~~

~~sequential nullifying step~~ including the remaining parts while the target data are reproduced from the recording medium, when ~~said second judging step judges it is judged~~ that there is the sufficient processing capacity to destroy the all data ~~which is judged as needing to be nullified~~.

26. (Currently Amended) The ~~data nullification program~~ computer readable medium of Claim 25,

wherein the recording medium stores sequence information that shows a sequence in which the plurality of data blocks were recorded onto the recording medium, and

wherein the first judging code segment ~~step~~ judges, in succession, the plurality of data blocks in the sequence shown by the sequence information, as needing to be nullified.

27. (Canceled)

28. (Currently Amended) The ~~data nullification program~~ computer readable medium of Claim 26, ~~wherein the method executed by the computer further comprises:~~

~~wherein the reproducing code segment a utilizing step of utilizing~~ reproduces the target data recorded on the recording medium, in units of data blocks, and

wherein the first judging code segment ~~step further~~ judges that each data block which was utilized in ~~the utilizing step~~ the reproducing code segment needs to be nullified.

29. (Currently Amended) The ~~data nullification program~~ computer readable medium of Claim 25,

wherein the recording medium stores time limit information showing a recording time

limit of each data block recorded on the recording medium, the recording time limit being a time limit after which retention of the data block on the recording medium is prohibited, and

wherein the first judging ~~step~~ code segment judges that each data block whose recording time limit is reached needs to be nullified, based on the time limit information.

30. (Currently Amended) The ~~data nullification program~~ computer readable medium of Claim 29, ~~wherein the method executed by the computer further comprises:~~

wherein a utilizing step of utilizing the reproducing code segment reproduces the target data recorded on the recording medium, in units of data blocks, and

wherein ~~the judging step further~~ the first judging code segment judges that each data block which was ~~utilized in the utilizing step~~ reproduced by the reproducing code segment needs to be nullified.

31. (Currently Amended) The ~~data nullification program~~ computer readable medium of Claim 25, ~~wherein the method executed by the computer further comprises:~~

wherein a utilizing step of utilizing the reproducing code segment reproduces the target data recorded on the recording medium, in units of data blocks, and

wherein the first judging ~~step~~ code segment judges that each data block which was ~~utilized in the utilizing step~~ reproduced by the reproducing code segment needs to be nullified.

32-34. (Canceled)

35. (Currently Amended) A data nullification method for nullifying at least a part of

target data recorded on a recording medium, ~~the target data being made up of a plurality of data blocks~~, the data nullification method comprising:

recording the target data on the recording medium, the target data being made up of a plurality of data blocks;

reproducing the target data from the recording medium;

~~a first judging step of judging, for each data block recorded on the recording medium,~~
whether the data block needs to be nullified when the data block is reproduced from the recording medium;

~~a sequential nullifying step of destroying only a part of [[a]] the reproduced data block~~
judged as needing to be nullified while the target data are reproduced from the recording medium,
the part of the reproduced data block including data necessary to ~~utilize~~ reproduce remaining
parts of the reproduced data block judged as needing to be nullified, the remaining parts being
unable to be reproduced without the part of the reproduced data block judged as needing to be
nullified;

~~a second judging step of judging whether a sufficient processing capacity exists to~~
destroy ~~the all data which is judged as needing to be nullified~~ including the remaining parts while
the target data are reproduced from the recording medium; and

~~a total nullifying step of destroying the all data which is included in the data block~~
~~judged as needing to be nullified and is not destroyed in said sequential nullifying step~~ including
the remaining parts, the remaining parts being not destroyed, when said second judging step
judges it is judged that there is the sufficient processing capacity to destroy the all data which is
included in the data block judged as needing to be nullified including the remaining parts.

36. (Currently Amended) The data nullification method of Claim 35,
wherein the recording medium stores sequence information that shows a sequence in
which the plurality of data blocks were recorded onto the recording medium, and
wherein ~~the first judging step~~ the judging, for each data block recorded on the recording
medium, whether the data block needs to be nullified comprises judging judges, in succession,
the plurality of data blocks in the sequence shown by the sequence information, as needing to be
nullified.

37. (Canceled)

38. (Currently Amended) The data nullification method of Claim 36, ~~further~~
~~comprising:~~
wherein a utilizing step of utilizing the reproducing comprises reproducing the target data
recorded on the recording medium, in units of data blocks, and
wherein ~~the first judging step further judges~~ the judging, for each data block recorded on
the recording medium, whether the data block needs to be nullified comprises judging that each
data block which was ~~utilized in the utilizing step~~ reproduced needs to be nullified.

39. (Currently Amended) The data nullification method of Claim 35,
wherein the recording medium stores time limit information showing a recording time
limit of each data block recorded on the recording medium, the recording time limit being a time
limit after which retention of the data block on the recording medium is prohibited, and
wherein ~~the first judging step judges~~ the judging, for each data block recorded on the

recording medium, whether the data block needs to be nullified comprises judging that each data block whose recording time limit is reached needs to be nullified, based on the time limit information.

40. (Currently Amended) The data nullification method of Claim 39, ~~further comprising:~~

wherein a utilizing step of utilizing the reproducing comprises reproducing the target data recorded on the recording medium, in units of data blocks, and

wherein the first judging step further judges the judging, for each data block recorded on the recording medium, whether the data block needs to be nullified comprises judging that each data block which was utilized in the utilizing step reproduced needs to be nullified.

41. (Currently Amended) The data nullification method of Claim 35, ~~further comprising:~~

wherein a utilizing step of utilizing the reproducing comprises reproducing the target data recorded on the recording medium, in units of data blocks, and

wherein the first judging step further judges the judging, for each data block recorded on the recording medium, whether the data block needs to be nullified comprises judging that each data block which was utilized in the utilizing step reproduced needs to be nullified.

42-43. (Canceled)

44. (Currently Amended) The data nullification method of Claim 35,

wherein each data block recorded on the recording medium has been encrypted using an individual encryption key,

wherein a decryption key for decrypting the encrypted data block is stored on the recording medium, and

wherein ~~the sequential nullifying step destroys~~ the destroying only a part of the data block judged as needing to be nullified comprises destroying at least a decryption key corresponding to a data block which is judged as needing to be nullified.

45-48. (Canceled)